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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/333,825	06/15/1999	PHILIP KOSSIN	KOS 0001P	4592

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EXAMINER
TOPPIN, CATHERINE J

ART UNIT	PAPER NUMBER
2612	4

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/333,825	KOSSIN, PHILIP	
	Examiner	Art Unit	
	Catherine Toppin	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,14-25 and 32-36* is/are rejected.

7)☒ Claim(s) *6-13,26-31 and 37-41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The quality of the text of the specification is poor. Several pages of the specification including the claims and abstract contain lines that are hard to read due to a lack of toner or other ink transfer problems.

Appropriate correction is required.

2. The disclosure is furthermore objected to because of the following informalities: Page 3 of the specification contains a hyperlink. Embedded hyperlinks or other forms of browser executable code are impermissible and require deletion.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 33** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "great depth" in claim 33 is a relative term that renders the claim indefinite. The term "great depth" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. Although the specification sites the term "very great depth" as normally a mile or more, the claim fails to distinctly point out and claim the range of depths at which the camera is claimed to be operable.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-5 and 21-25** are rejected under 35 U.S.C. 103(a) as being anticipated by Kamata (US 6128441) in view of Ford (US 6091443.) As for **claim 1**, Kamata teaches a waterproof case for a camera, which the examiner interprets as hermetically sealed or airtight, comprising a digital electrical signal interface and converter for downloading remote control information from the camera. (See column 2, lines 21-27.) The examiner interprets the signal transmission part (2) of figure 2 as encompassing both the interface and converter of claim 1. Both the digital camera and the converter are enclosed within the housing (see figure 2) and the enclosure is transparent to both an area of an optical lens so that pictures may be taken through the enclosure (24) and the radiation signal output of the converter so that image information is communicable exterior to the camera (22.) (See figure 3 and column 4, lines 55-63.) Kamata is silent on the camera as transmitting image information. Ford, however, teaches an underwater viewing system that transmits image signals from the camera assembly via a cable. (See column 2, lines 30-39.) It would have been obvious to one of ordinary skill in the art to use the housing and converter of Kamata for the camera of Ford in order to transmit image information without having to remove the memory from within the housing. It would have been furthermore obvious to one of ordinary skill in the art to combine the camera of Ford in the housing of Kamata in

order to wirelessly transmit image signals from the camera to a remote location so that transmission of image information would not be limited by the length of the cable.

7. As for **claims 2 and 3**, Kamata teaches the wireless transmission of remote control signals. The examiner interprets this as encompassing radiation signals in general, including both optical frequency radiation signals and radio frequency radiation signals.

8. As for **claims 21-23**, the examiner interprets the method described as substantively equivalent to the system of claims 1-3 respectively, and therefore claims 21-23 are rejected for reasons described above.

9. As for **claim 4**, Kamata in view of Ford discloses a waterproof digital electronic camera system according to claim 1, but is silent on the electronic signal interface of said camera as specifically being a serial interface. The examiner takes Official Notice that digital signals are transmitted either serially or in parallel. Thus, it would have been obvious to one of ordinary skill in the art to include a serial digital electrical interface in the system of Kamata wherein the converter converts digital signals upon the interface to serial signals in space in order to transmit image information in serial form to a remote location via a wireless network or link. As for **claim 5**, the examiner takes Official Notice that an RS-232 is a type of digital serial interface, and thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use an RS-232 serial interface as a common means of serial communication in the camera system of Kamata.

10. As for **claims 24 and 25**, the examiner interprets the method described as substantively equivalent to the system of claims 4 and 5 respectively, and therefore claims 24 and 25 are rejected for reasons described above.

11. **Claims 14-20 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamata in view of Ford in further view of Fraker (US 5089895.) As for **claim 14,** Kamata in view of Ford discloses a waterproof digital camera as in claim 1, but is silent on the potting of the camera and converter in an optically clear dielectric material. Fraker, however, teaches the potting (encapsulation) of a camera system and its components in a clear dielectric material (plastic material.) (See column 1, lines 42-48.) Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use potting of the camera and its components in the camera system of Kamata in view of Ford in order to provide a housing that protects the camera against damage in hostile environment in an underwater application. As for **claims 15 and 16**, Fraker teaches that the potting material is plastic. (See column 2, line 24.) The examiner interprets this as consisting essentially of both plastic and polycarbonate plastic groups. As for **claim 17**, the examiner interprets the enclosure of the camera system of Fraker as containing only solid masses, essentially without gas, wherein the camera is potted. (See figure 5.) As for **claims 18-20**, the examiner interprets the variation of the dielectric material and its physical state (either solid, liquid or fluid) as an obvious variation to the previously rejected claim 17. The matter of which type of dielectric material is interpreted as a matter of design choice, and thus claims directed toward such are viewed as obvious variations to prior art teaching. **As for claim 32**, the method claimed is interpreted as substantively equivalent to that of claim 19, and is thereby rejected for reasons described above.

12. **Claims 33-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Daspit (US 5678091) in view of Fraker. As for **claim 33**, Daspit teaches a camera within a chamber that can be made operable at any depth. (See column 1, lines 63-67.) Daspit is silent on the electronics

of the underwater camera system as within a solid mass of clear dielectric material. Fraker, however, discloses a digital electronic camera in which the optics and electronics of the camera are permanently within a solid mass of dielectric material containing essentially no gases whatsoever. (See figure 5.) Thus, it would have been obvious to apply the teaching of Fraker in the camera of Daspit in order to protect the camera against the harsh underwater environment as well as aid in the protection of the camera and its components. As for **claims 34-36**, the camera of Fraker is interpreted as potted inside and out in a solid block of clear dielectric material, namely plastic. (See column 1, lines 42-51.) As for **claim 36**, polycarbonate is interpreted as encompassed within the term plastic.

Allowable Subject Matter

13. **Claims 6-13, 26-31** and **37-41** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art discloses a waterproof digital camera system as in claim 1. However, prior art does not teach or fairly suggest a waterproof digital camera system including the specifics of a converter, shutter and trigger circuitry, and rechargeable power source as described by the limitations of claims 6-13 and the analogous method claims of 26-31. In addition, prior art does not teach or fairly suggest the liquid-tight exterior case of claims 37-41.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Toppin whose telephone number is (703) 305-8144. The examiner can normally be reached on Monday-Friday 8:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

CJT
May 8, 2003

WENDY R. GARBER
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